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ABSTRACT

This paper is a direct continuation of the experimental evaluation of the basic space-hypothesis explored in "Real Time Imaging of the Rotation Mechanism Producing Interview-based Language Spaces." This project has required that different pars, the spaces of the A- and O-domains, be related and contrasted. In this paper the focus is on the rotation-translation hypothesis. This paper demonstrates that the oscillations in pattern dynamics produce perspective transformations of motifs and themes. Motifs are assumed to carry intentional cues and to locate structurally the observer's thematic orientation. At the kinematic level, this condition has made it possible to extract different perspective orientations. It is demonstrated that the asymptotic behavior of evolving motifs provides the basis for a thermodynamic description of an original Swedish sample text and to compare the description with the dynamics induced through its translation into English. As a result, it is shown that the original and its translation share highly similar informational invariants. This means that their attractor spaces are structurally alike. With reference to the general recognition problems, the capacity to induce dynamics in another system and to demonstrate their similitude has meaning and important implications for further analyses and system synthesis. (Contains 3 tables, 5 figures, and 22 references.) (Author/SLD)

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Abstract

The article is a direct continuation of the experimental evaluation of the basic space-hypothesis as explored in "Real Time Imaging of the Rotation Mechanism Producing Interview-based Language Spaces". This has required that different parts, namely the spaces of the A- and O-domain, are being related and contrasted to one another. Now, in focus is the rotation-translation hypothesis. The present paper is demonstrating that the oscillations in pattern dynamics are producing perspective transformations of motifs and themes. Motifs are assumed to carry intentional cues and to locate structurally the observer's thematic orientation. At the kinematic level, this condition has made it possible to extract different perspective orientations. It is demonstrated that the asymptotic behaviour of evolving motifs provides the basis for a thermodynamic description of an original Swedish sample text and to compare the description with the dynamics induced through its translation into English. As a result, it is shown that the original and its translation share highly similar informational invariants. This means that their attractor spaces are structurally alike. With reference to the general recognition problems, the capacity to induce dynamics in another system and to demonstrate their similitude has meaning and important implications for further analyses and system synthesis.

Traditionally, the use of natural language expression in the study of complex system behaviour presupposes that its observer can verbalise his observations. Further, it can be observed in the study of the behaviour of complex dynamical systems that text becomes broken into pieces, which are expected to provide the elements for the construction of "word models" (Jeffers, 1978, p. 164). This kind of fragmentation is assumed to guarantee the generation of the proper basis for system analysis. In this context "box" diagrams are designed which seems to provide a framework of thought. Hence, it is believed that this kind of "boxitis" is capable of pinpointing complex interactions through links between the boxes, which mark the "information flows". One of the main reasons for drawing box diagrams is probably the purpose of abstracting essential elements. Thus modelling and theory construction implies that links can be drawn between boxes and designated by words.

Since the primary research goal of the behavioural sciences concerns the development of observation methods, it is striking how difficult it is to search for a most precise verbal description. Still, the research in the fields of the behavioural studies is in crisis, and its root can be traced, partly to the use of statistical tests of significance, which bear the essential responsibility (Bakan, 1966), partly to the use of algebraic models and stochastic mechanisms (Heath, 2000). Neither the conclusions drawn from testing, nor model simulations, based on boxes (Ford, 1999), can accommodate the non-linear dynamics in human behaviour. In particular, the problems of linking algebraic models and stochastic mechanisms to verbal behaviour appear simply too complex. Its non-linearity also poses insurmountable problems for evaluating the normative theories used in mathematical modelling and decision-making.

That people can perceive or conceive a number of material and immaterial properties of objects and events is an indisputable fact. But the rise and fall of one's conscious awareness of objects and events depends on the presence of a proper conceptual structure and an effective "bookkeeping" mechanism. The conceptual structure is assumed to emerge naturally from the non-linear processes of string dynamics (B. Bierschenk, 2001b). Recent analyses have shown that conscious interaction with real or virtual environments is closely connected the one's synthesising ability in the exploration of those environments (B. Bierschenk, 2001b).

What sets the present approach apart from the working with artificially constructed classes and their arrangement into box diagrams is its concentration on rotational dynamics and on a geometric description of the results of textual movement patterns. Hence, the basic focus will be on pattern dynamics as outcome of a subtle interplay between intentionality and orientation, for which the Agent-action-Objective (AaO) axiom provided the foundation.

Since language conceived of as self-referential system becomes structured through its own internal driving forces, its production is a function of its biological clocking mode. Thus the formation of language patterns is the result of self-organising processes, but self-reference as information synthesising mechanism implies the coupling of language structure and system dynamics. The discovered mechanism is responsible for the formation of patterns and the emergence of order. Further, it has been shown that the circular coupling of textual agents (A) with textual objectives (O) is the characteristic property of this mechanism. Through individual variations in the growth of its components as well as their variations in nesting, it is possible to demonstrate that structural stability and textual morphogenesis is generating corresponding informational invariants. But a precondition for the study of emerging invariants is that structure cannot be imposed a priory. However, it can be discovered through Perspective Text Analysis (PTA) (B. Bierschenk, I. Bierschenk & H. Helmersson, 1996). PTA allows for the study of multiply stable states and how these are organising themselves within certain attractor spaces. In this sense the original meaning of categorisation will be studied on the basis of the following hypothesis:

Hypothesis. Multiply stable states of accusation or assertion are organising themselves into several different state attractors, through which a unified concept of categorisation can emerge.

When the process of categorisation is made the starting point for the operations of the AaO-formula (B. Bierschenk, 1984), it is implied that the dependent variables of the preceding level of processing become the independent variables for the identification of relations between categories. Now, it is suggested that the Schema-mechanism as demonstrated in B Bierschenk (1994), operates with "Structure" and "Form" as the experimental factors. Figure 1 is demonstrating the result of their cooperation and interaction.

Figure 1.

Emergence of Structural Invariants

-+ a	Form –	Form +
Structure –	Relationship (Wholeness)	Variation of Orientation
Structure +	Variation of Intention	Invariance

As shown in Figure 1, the identification of a "relationship" between categories constitutes the condition for the zero-hypothesis of wholeness. Without the reconstructive capacity of the Schema, there is no way to access the foundational prerequisite of wholeness, namely structural identity. Therefore, it is always necessary to establish the shape (= Gestalt) of a structure. Hence the zero-hypothesis implies that the structural identity of a Gestalt remains implicit and consequently unknown.

However, mobilising the "Structure"-factor implicates that the "Intention" in the formation of a Gestalt becomes accessible as the result of time-dependent changes of its shape. In this perspective, mobilising the "Form"-factor means that the "Variations in the Orientation" of the shapes become evident in evolutionary time. Hence, in the process of differentiation, both factors generate variations in the resulting transformation. But only under the condition that both are simultaneously mobilised, becomes the character of transformation conserved in a shape. As a result, "Invariance" is the novelty at this level of processing.

The purpose with the design, depicted in Figure 2, is to make evident that natural language production is expected to generate complex geometric forms, which are carrying meaningful information. It follows, that the representation of information (in the Gibsonian sense) requires the establishment of a morphogenesis and the concept of evolution (Thom, 1975, p. 145). Moreover, progressive processing demands a measure on the rhythmic driving in text production. Since evolution is the basic condition for this kind of study, its impact is expected to emerge in the "Shapes of Time" (McNamara, 1997). But the establishment of those shapes concerns the observer's moulding of his motifs and his themes. Stable

informational invariants are expected to emerge on the basis of the relationship, depicted in Figure 2. This operational approach points toward the presence of thematic transformations.

Figure 2.

The Sources of Accusation

Structure -+ a	Form –	Form +
–	Discourse	Variation of Theme
+	Variation of Motif	Morphogenesis

Possible transformations in the microstructure of a motif or a thematic development and subsequent translations are expected to be the result of an account of rotational dynamics and its effect on the changes in perspective. Traditionally, the study of natural language production has been insensitive to perspective changes as well as to rotational translation. However, the rotation-translation hypothesis gives weight to the effect that distinct changes have on the resulting asymmetries. Consequently, changes in attitude concern the text producer's observation of his own position in relation to the position taken by other people.

As a product of changing attitudes, it can be observed that any pure verbalisation must have been anchored in the producer's ego-involvement. Furthermore, it can be expected that the functional relation between the position formed by an observer and the meaning-generating context give rise to awareness, which is difficult to capture in its entirety through any translation. The functional import of the observer-event involvement in text production means that the observer as text producer gives expression to his mode of picking up information from his ecological surroundings. What has been observed and expressed verbally is always multivariable and multidimensional in kind. Further, any immediately expressed perceptual awareness can be analysed, provided that the analysis can be carried out "without any intervening dissociation" of the expression. To the degree that a sensitive verbal reaction to a perceivable phenomenon can be processed the synthesis of the perceived phenomenon can be approached scientifically. Since synthesis implies wholeness, perceptual coherence can be penetrated without direct access to the context in which the perceiver has made his perceptual experiences.

The way in which the observer in his discourse is handling various points of view is closely related to his own way of functioning in a given environment. With respect to the apprehension of any particular "point of view", its distance from the perceiver's "point of observation" can be analysed effectively. If the distance between a point of view and a point of observation appears to be tiny, it would imply constricted rotational operations. Hence, the greater the distance between a particular point of observation and certain operating viewpoints the higher is the acceleration in the involved attitudinal shifts. However, when a certain point of observation is determined by its closeness to a particular point of view, a rotational change would give expression to the speed of shifting perspective. Moreover, when a point of

observation is at great distance, it is implied that distance gives expression to invisible points of view, and therefore to implicitness. Implicitness provides greater resistance to change. A direct measure on the resistance to a change from one phase to another is the corresponding change in pattern dynamics.

In focussing on rotation and translation, it will be demonstrated that the oscillations in pattern dynamics are producing perspective transformations of motif and themes. Motifs are assumed to carry intentional cues. Furthermore, it will be shown that motifs contain information concerning the thematic orientation of the produced textual pattern dynamics. Invariant structural relations are expected to emerge and to point toward the presence of a biologically determined interplay between the holophors of the perspectivation of the following sample text:

Original Swedish Text:
Titta på hur inställningen är idag, och det är ju inte bara bland de kommunalt anställda, de flesta tycker ju att jag har ju min lön, varför ska jag då hjälpa till med att komma på hur kommunen ska spara, det skiter väl jag i. Det är samma resonemang här, /…/.

English Translation:
Just think of the common attitude today, and that does not go for local government employees only, most people think I have got my salary, why should I bother to come up with ideas as to how the local authority could save money? I do not care a damn. It is the same reasoning here, /…/.

The present approach to "foliation" (Connes, 1994) and structural analysis of this paragraph will be based on discontinuity and the previously established phase-dependency (B. Bierschenk, 2002b). The strict dependency in the working of the AaO-mechanism has, moreover, overcome the "polynomial incompleteness" problem of the classical approaches (Raff, 1996, p. 106). It follows that the only tool necessary for exact and precise reconstruction is an efficient foliation procedure. Such a procedure has been provided by Connes.

The basic condition of this procedure concerns the process of producing "leaves". According to Connes, the state of being in leaf means the arrangement of leaves in a leaf bud. In following Connes argumentation, it can be stated that "ornamentation of a bud" consists of the degrees of change in the articulation of the variables reproduced in Table 1. Since the change in the observation of a change in articulation means a change in attitude, ornamentation is reflected below in the cups and foils of the Figures 3 to 6. Thus, the process of producing branches and their arrangement in succession requires that a change is determined within and between the periods and intervals of a period. By applying the Connes-fusion as method of foliation, the values of Table 1 can be processed progressively. It follows that operations come into existence that unite certain magnitudes. As a result, it can be shown that subtle discontinuities in the speed of textual pattern rotation can be captured by the Connes-fusion.

Functional Relation between Attitude Change and Displaced Text

Basic to the degree of displacement is the assumption that the observer's verbalisation of an event is always intentional and causing a discourse to vary with respect to the degrees of involved rotations. In short, timing and spacing in the development of a kinetic trajectory has verbal significance and calculation directs the generation of sequence-specific bindings.

Table 1.

Interval-dependent Displacement in the Swedish and the English Sample

Swedish	A-domain	O-domain	English	A-domain	O-domain
Variable	α	β	Variable	α	β
01	0.000000	-0.902812	01	3.466560	6.695100
02	3.818240	4.103980	,		
,			02	0.996550	1.239363
03	0.989100	4.433680	03	4.501526	8.981500
04	0.989100	5.092920	,		
05	4.505465	2.989547	04	4.116540	3.786840
,			05	3.471074	-0.762710
06	4.110260	3.793120	06	1.125866	4.116540
07	3.786840	4.430540	,		
,			07	-0.887050	3.789980
08	0.910600	3.786840	08	4.558167	-19.02950
09	5.106746	-34.49540	09	2.872959	-10.51767
10	5.106746	-33.12930	10	2.872959	-7.028198
11	2.650337	-25.32032	11	4.458800	0.337751
12	3.802540	-16.65811	12	3.949413	4.113400
13	3.549990	-9.716056	?		
,			13	3.457140	1.258715
14	-11.84649	4.119680	14	3.640661	4.427400
15	-11.84649	1.887140	.		
.			15	-0.296398	5.096220
16	-15.23049	4.775940	.		
.					

Note. The values are adapted from "Real Time Imaging of the Rotation Mechanism Producing Interview-based Language Spaces" by B. Bierschenk, (2002), *Cognitive Science Research, 83*, p. 12.

On the kinetic level of verbalisation, it means that increasing depth implies increasing implicitness and consequently increasing angular displacements of strings in the form of textual agents and textual objectives. The greater the acceleration in the displacements of text segments the larger is the distance to be covered by the developing path.

Applying the Connes-fusion means applying a technical operation on the variable (x) of the S^3-matrix (Winfree, 1980, p. 5). Letting the base point (x) of a variable be equal to (q=1) so that [U(x)=1] means a progressive processing of the connecting T-matrix for the A- and O-domain respectively. The connection matrix [T = (C⊗C)] is resulting directly from the association of two discrete points, for example ($\alpha_1 \neq \alpha_2$) or ($\beta_1 \neq \beta_2$). It follows that progressive processing is definable on the basis of the distance ($\Delta/2$) operator, which is folding the A-matrix as well as the O-matrix. The folding makes the coupling process (C) evident and gives the outcome its direct physical meaning.

As has been elucidated in the article mentioned in the "Note" of Table 1, the geometric description of a verbal flow and the flexibility of VERTEX are efficient properties in the processing of complicated AaO-configurations (B. Bierschenk, 2002a). However, it is

crucial for an understanding of the dynamics of the dependency relation between AaO-systems, that a comprehensive profile over the ρ-dimensional shapes of it's A- and O-configurations can be established. It follows that $[\rho(e^{i\Phi})=U]$ is the relation, which is transforming single αβ-compounds into comprehensive contours within hyperbolic spaces, which by definition are negatively curved (Greene, 1999, pp. 379-380). Moreover, by definition, these spaces are "hyperbolic" at any level (Connes, 1994).

Thus, angular articulation is developing during the generation of a space and depends on the constraining effects of timing and spacing. This is equivalent with saying that deviations from surface-uniformity can be captured through developing constraints and demonstrated at the kinematic level through radians that differ in magnitude. How differences in angular articulation will constrain the behaviour of individual α- and β-variables within a certain interval will be demonstrated below in connection with the presentation of the holophors.

The experimental procedure will focus on the way in which the radians of Table 1 are reflecting the functional requirements of the timing and spacing of textual elements. A first measure of the difficulties posed in the translation of categorised ecological properties and the categoriser's explanations is the degree to which a potential re-distribution of generated depth-relations has taken place. Within the framework of phase-dependency, it can be concluded that the variations in text production have produced some observable differences in clocking, which mirror various kinds of oscillations.

To restate, the notion "depth" refers to the manifested distance measures of Table 1. A convenient device for visualising distance in the form of a convoluted configuration is to rule a coordinate grid on the source space. Thereafter, the rotation dynamics of a particular space can be examined as distance between aggregated radians. This operation opens a new perspective on the dynamics of text building and implies a discussion of the meaning to the emerging information profiles. Related to the given example, the Figures 3 to 6 are representing the distances in the attractor spaces on the basis of "Strain"-function, which is marked on the X-axis, and "Shear"-function, which specifies the Y-axis. These functions are forcing the aggregated measures on the Z-axis to create fitness landscapes, which are characterised by mountains and valleys.

To generate the foundation for the formation of an attractor space, the SigmaPlot (1998) grid procedure has been used and interpolated with its standard transformation function. SigmaPlot is using an inverse distance method, where the distance weight value (p) has been set (p=3). When the property of distance is taken as criterion for the evaluation of a particular convolution, it turns out that the Swedish holophors, shown in the Figures 3 and 4, have the highest degree of implicitness, when compared to the English holophors, shown in the Figures 5 and 6. Moreover, the distinctness and reconstruction of the functional relations between the terms of a holophor is a demonstrative expression of perspective rotation. An evolving thematic trajectory at the kinematic level is therefore an expression of the translation of a microstructure as well as a theme.

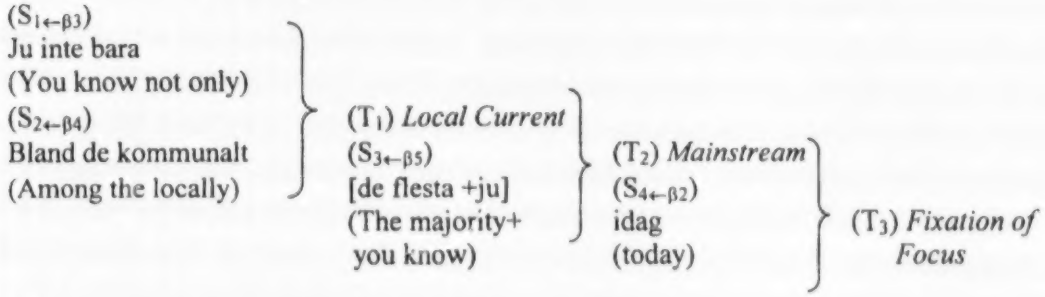
Short but significant sequences are making up the generation of the pathways to the microstructures of a particular configuration. On the other hand, themes are initiated through the crossing of two pathways. But folding the variables of Table 1 corresponds to processing of the terminal states of a system. That meaning, as defined by the Connes-operator, can be abstracted from the involved text segments is simultaneously suggesting that a name of the resulting "virtual" state attractor can be generated on the basis of the interacting text segments.

The Swedish Holophors

Founded on the previous studies of the function of imperfect AaO's in the development of structure, rotational dynamics within the Agent-action-Objective (AaO) framework has been introduced and discussed topologically (B. Bierschenk, 2001b). Moreover, based on the established kinetic trajectories (B. Bierschenk, 2002b), the present study aims at the establishment of compound structures at the kinematic level. It is assumed that the thermodynamic trajectories of the experimental material differ in direction and orientation.

However, variations in the degree of informational complexity at the kinetic level are implied whenever trajectories appear stable and reproducible at the kinematic level. It follows that trajectories are guided through the production of information, but the biological roots of the AaO-mechanism are assumed to account for their deep commonalty. Invariant structural relations are expected to emerge and to point toward the presence of a biologically determined interplay between the holophors of A- and O-domain, respectively.

The naming of first microstructure of the Swedish O-holophor and the transformations in the naming process is the result of the rotational distance between the following segments of text:

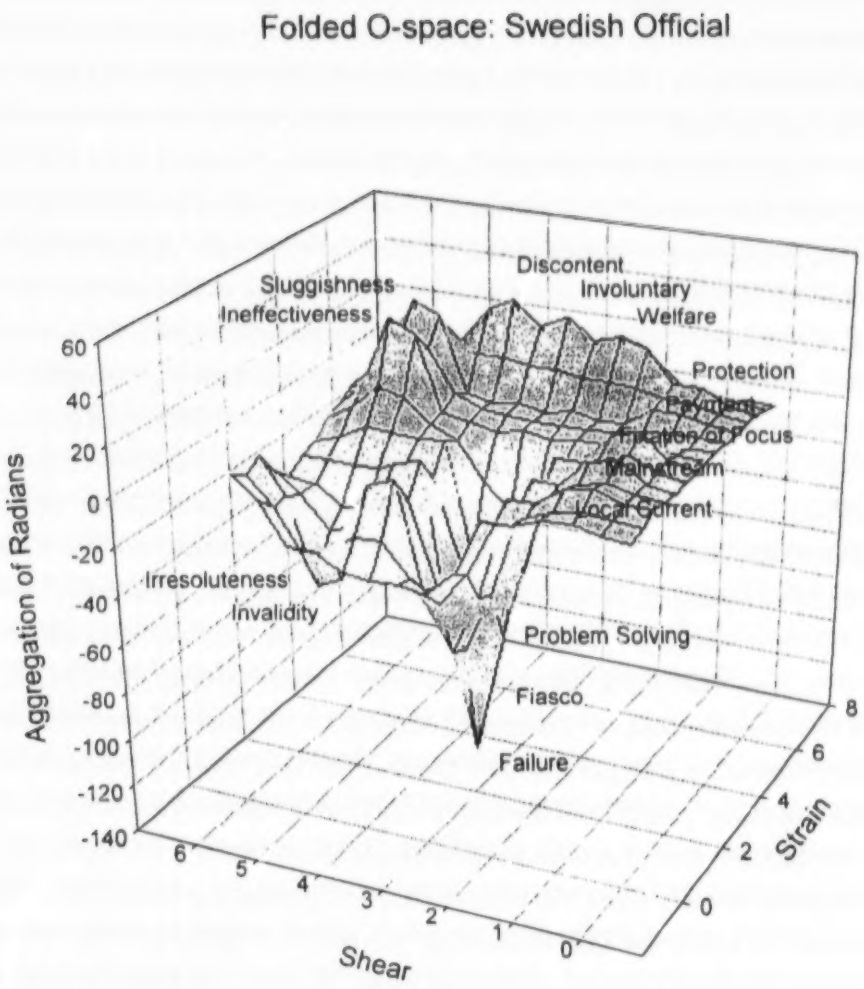


The fusion of the textual segments of the first two variables (β_3 and β_4) is bending the initialisation of the course towards the awareness of a locally significant opinion. Thus, the first name is expected to reflect the condition captured through the verbalisation and carried by the text segments. The achieved sequence-specific determination of the present state is converging in the invariant (T_1) *"Local Current"*. This invariant is the result of a virtual state of a reaction towards a locally determined accusation. Hence the name of this terminus (T_1) refers to the believed prevailing current of reasoning among the workers of the municipality in question.

In a second step, the achieved virtual state is transformed by means of a twofold layered textual segment, which is simultaneously carrying both "cause", bound to the section ('the majority') and "effect", connected to the section ('you know'). Emerging is a conceived common attitude, which is converging on the state attractor (T_2), which has been named *"Mainstream"*. The result of naming the invariant at (T_2) signifies the condition of a focus on the representative character of the conceived sentiment. In the third transformational step, the continued fusion requires that the next text segment ('today') is processed and becomes folded into the path. The resulting functional transformation can be expressed by the meaning this grapheme-string is carrying. Since the ecological meaning of the expression implies a "focal point", the process of fusing has the function of twining together actuality with an awareness of an opinion. Hence, the determination in this condition is easily apprehended at (T_3) as a *"Fixation of Focus"*.

Figure 3.

The Swedish Objective



The distinctness of the path of the first microstructure follows from the direction of influence, which is building up in a modular fashion. Coming to the "sense" of the established substructure requires that the text producer's "Ego-motion" must be conceived of as a constituent in the specification. Hence the final outcome of the trajectory, generated by the first path, forms a small, but independently folding line. A major advantage of the illustrated processing is its transparency concerning the participating textual segments.

The path of the second microstructure, however, is formed and transformed on the basis of expected regular reimbursement and captured in the following transformational development:

($S_{5\leftarrow\beta6}$)
Ju
(You know)
($S_{6\leftarrow\beta7}$)
Ju min lön
(You know my salary)

(T_4) *Payment*
($S_{7\leftarrow\beta8}$)
jag då
(I then)

(T_5) *Protection*

Proper incorporation is the result of gentle changes in the measurements, but any faithful incorporation may be refined further or may be corrected by continued folding of the developing trajectory. The path of the second substructure is transformed on the basis of expected regular reimbursement. Therefore, the resulting informational invariant (T_4) is appropriately named *"Payment"*. The name of the state attractor implies that the present workpeople appear aware of the "rights" for compensation. Since the verbalisation of an event is always intentional and causing a discourse to vary under the operations of rotation and translation, sequence-specific binding of text segments works with the local conditions that are responsible for the discovery of the meaning of a path and its possible relationship with the thematic development at the kinematic level. Thus, the "time-directed" processing is generating a second independently folding line, which is properly incorporating the nearest text segment ('I then') into the terminus (T_5). Since the wording is pointing towards the expectancy of unconditional payment and the latter is an expression of protection, the terminus has been named *"Protection"*.

Both trajectories are working towards a definite information synthesis otherwise it would be difficult to penetrate the microstructures underlying a particular configuration and to account for the solution of the embedded themes:

(T_3) *Fixation of Focus*
(T_5) *Protection*

(T_6) *Welfare*

The foothills of the Swedish O-holophor (Fig. 3) are dominated by *"Fixation of Focus"* and *"Protection"* and their interactions with local and global currents. Thus, the actual folding has generated two substructures and a saddle-shaped crossing of their trajectories. The latter has established the first theme, existing in the verbalisation. It follows that the order of composition is the result of the asymmetric relationship between the emerging "leaves" and the order, determining the translation in the text producer's thematic direction. That the

thematic direction in the producer's awareness of his environment can change in important ways is illustrated with the invariant that follows the crossing.

The name of the invariant is concentrating on the citizen's understanding of his municipality-system. By means of this system, the state in the form of its local government assumes primary responsibility of the welfare of its citizens. Thus, the state attractor (T_6) carries the terminus *"Welfare"*, which has a controlling function and is generating convergence towards the initialisation of a thematic trajectory. But the terminus *Welfare* of the state attractor (T_6) becomes transformed. This transformation is building on the fusion of the text segment ('a damn I'):

(T_6) *Welfare*		
($S_{8\leftarrow\beta14}$)	(T_7) *Involuntary*	} T_8 *Discontent*
Väl jag	($S_{9\leftarrow\beta16}$)	
(A damn I)	samma resonemang här	
	(the same reasoning here)	

What is implied in the verbal expressions is an asserted negligence of one's duties in combination with a reference to prevalent unwillingness. This condition has to be conceived of as a certain kind of invulnerability. Therefore, the constraining factor appears to transform the evolving theme into the attractor state (T_8), which is carrying the terminus *"Involuntary"*.

Evidently, the next following text segment ('the same reasoning here') implies a step, which is producing bending of the evolving course into a direction that is generating the sense of *"Discontent"*.

T_8 *Discontent*	}	T_9 *Sluggishness*	} T_{10} *Ineffectiveness*
($S_{10\leftarrow\beta15}$)		($S_{11\leftarrow\beta1}$)	
i (Y)		på [inställningen+idag]	
at(Y)		(at [the attitude+today])	

The major difference in the meaning of a further transformation occurs in the relationship between the attractor and the text segment (at(Y), which implies inactivity. Thus, asserted lacking of alertness transforms the path through the emergence of a new state attractor (T_9), which therefore has been designated with the name *"Sluggishness"*.

Through evolutionary development, a cooperative interaction between certain points of observation and particular viewpoints has been manifested in the transforming segments of (T_9). In addressing this compound, the accusation, which is carried by the layered text segments, is consistent with a faithless conduct. By necessity, faithlessness must lead towards widespread *"Ineffectiveness"*.

Thematically the course is now manifesting a certain kind of asserted unacceptability of a behavioural conduct, which is resulting in delaying tactics. The latter is offsetting the local authority's responsibility and duties. Furthermore, it can be concluded that the appearance of the state attractor (T_{10}) is resulting from an obvious obstructive disinclination, which is accentuated further through the following multi-layered segments:

($S_{12\leftarrow\beta13}$)
på (kommunen+ väl jag+i(Y))
up (the municipality+ I+a damn)
($S_{13\leftarrow\beta12}$)
Kommunen+väl jag+i(Y)
(The municipality+a damn I+ a damn)

} (T_{11}) *Irresoluteness*
($S_{14\leftarrow\beta11}$)
(kommunen+väl jag+i(Y))
(Municipality+ I+I a damn)

} T_{12} *Invalidity*

The involved transformations are obviously initiating an effective twist towards a state, where an extraordinary incapacity of solving certain problems of the municipality is generating the final state attractor of the present microstructure. Thus, closely related to the repeated presence of compounds is the conservation of *"Irresoluteness"* in the thematic bending of the evolving course towards the implied poor condition of *"Invalidity"*.

As shown in Figure 3, the termini *"Irresoluteness"* and *"Invalidity"* have developed below sea level. They are structurally elaborating the implicit orientation in the text producer's understanding of his contextual conditions. As a result, this condition will now be tested on the basis of a thermodynamic description of the dynamics induced through its transformation. Hence, a final substructure is emerging, which is related to the following terminal state transitions:

($S_{15\leftarrow\beta10}$)
till (jag+kommunen+ väl jag+i(Y))
at (I+the municipality+ I a damn)
($S_{16\leftarrow\beta9}$)
med (kommunen+ väl jag+i(Y))
(with (the municipality+I+a damn+a damn))

} T_{13} *Problem Solving*

In order to provide a possible solution, the capacity of ideas to serve as mainsprings of action is the true potential for *"Problem Solving"*. At a minimum, it serves as the basis for diagnosing possible disorder. The implication captured in the name of the resulting attractor state (T_{13}), is addressing the fact that an idea in the concrete is more than merely a cognitive element.

T_{12} *Invalidity*
T_{13} *Problem Solving*

} T_{14} *Failure*

The crossing of the state attractor (T_{13}) with (T_{12}) gives expression to the idling of many people. Hence, emerging is the state attractor (T_{14}), which transforms the evolving path into a persistent *"Failure"*. The character of unyielding repression, associated with notorious non-fulfilment, has received expression in the name: *"Fiasco"*.

T_{10} *Ineffectiveness*
T_{14} *Failure*

} T_{15} *Fiasco*

When the *"Failure"* is bending the thematic development into a new direction, a radical deflation becomes observable. Thematically, it means that the attractor state *"Ineffectiveness"* is transformed by *"Failure"* into the resulting global state attractor *"Fiasco"*, which is settling the thematic course.

The Holophor of the A-space

The extraction of the informational invariants of the configuration of intention begins with making an important demarcation, namely the distinction between a "point of observation" and the corresponding "points of view". The distinction is effectively contributing to a refinement of the characteristic quality of the configuration in the A-space as shown in Figure 4. Just as a structural expression of a viewpoint is representing a particular orientation so is a point of observation structurally representing the expression of intention. Both make full use of the text producer's articulation capacity, which is reflected in the coupling of the pathways in both spaces. Through a cyclic extraction of the informational invariants of configuration in the O-space, it will be demonstrated to what extent the oscillations in the working of the A-component have caused a redistribution of the articulation potential.

For extracting the informational invariants of intention, it is essential to follow up the cooperative interaction, characterising the configurations of the sub-spaces of intention and orientation. For example, in advancing the phenomenon of "looping" in a text producer's argumentation, it will be shown that it is an intentional phenomenon, which is producing reappearing state attractors. A single terminus can follow itself and reappear on the same dimension. But a terminus can also reappear on different dimensions and at different levels of the path of intention. Thus, the differently determined configurations of intention are the result of potential redistribution.

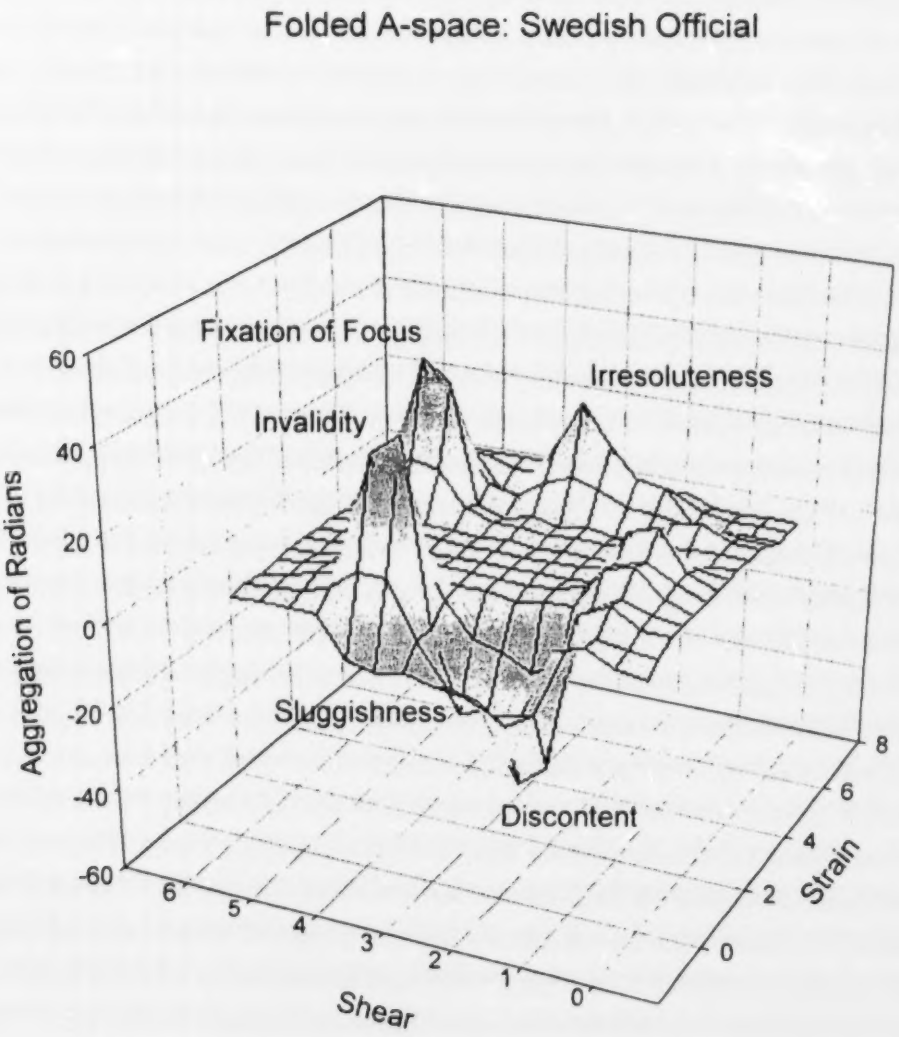
The cyclic extraction of the informational invariants of the A-space starts at the moment when the process of extraction is advancing through the terminal states:

($S_{1\leftarrow\alpha5}$) (de flesta +ju) (the majority+you know) ($S_{2\leftarrow\alpha6}$) (de flesta +ju) (the majority+you know)	(O_{T4}) *Payment* ($S_{3\leftarrow\alpha7}$) jag (I)	(O_{T4}) *Payment* ($S_{4\leftarrow\alpha2}$) Inställningen (the attitude)	(O_{T3}) *Fixation of Focus*

The swing of the pendulum is starting when the process of extraction is encountering the states of the first substructure. From the position of the first terminal state the process is transiting through corresponding terminal state (S_3) in the O-space. But the next following terminal state has its counterpart in the terminal state (S_5) in the O-space, which marks the end of the swing. Thereby, the pendulum is required to extract (O_{T4}) and consequently the terminus *"Payment"* as the proper description of the first attractor in the A-space. The pendulum mechanism of extraction has been presented previously (B. Bierschenk, 2002 a). In staging a second swing towards the orbit of the evolving oscillation curve, the path is settling in (S_6) of the O-space. As a result, the process is looping and thereby extracting *"Payment"* a second time. With *"Payment"* as new point of departure, the succeeding swing is ending in the terminal state (S_4) of the O-space.

Figure 4.

The Swedish Agent



Since the highest point of the resulting curve is reached immediately before the swing ends, the location (O_{T3}) contains the description of the singularity, namely *"Fixation of Focus"*.

As shown in Figure 4, the evolving path of intention gives expression to an ordered sequence of positions that differ to a certain extent form the specification order of the O-configuration. In as much as configurations are conceived of as autonomous, it is possible to determine the path of intention in relation to the path of orientation. Concerning the establishment of the final invariant of the first motif structure, it can be concluded that the underlying rotations have partially changed the structural embedding. Hence the first motif is an example of a microstructure that is only partially invariant.
The swing of the pendulum is starting again when the process is encountering the terminal states of the second motif:

($S_{5\leftarrow\alpha12}$)
kommunen
(the municipality)
($S_{6\leftarrow\alpha13}$)
kommunen
(the municipality)

(O_{T11}) *Irresoluteness*
($S_{7\leftarrow\alpha11}$)
varför (X)
why (X)

→ (O_{T11}) *Irresoluteness*

Obviously, the extraction of *"Irresoluteness"* a second time is the result of a halo-band underlying the evolution of the configuration of intention. But timing in the rotation requires the process to re-iterate a new swing on the basis of the following terminal state:

($S_{8\leftarrow\alpha9}$)
varför (X)
why (X)
($S_{9\leftarrow\alpha10}$)
varför (X)
why (X)

→ (O_{T13}) *Problem Solving*

What has governed the establishment of this motif is a process that is oscillating around the quality of perceived individual performance. For example in penetrating the potential for achievement with the intention to explore the probability for finding the right answer, an individual may be given a particular task. The function of the task is to determine if there is validity in the problem-solving pattern. However, through the cycle, starting in the state attractor (O_{T13}), the pendulum is now swinging back to the point (O_{T11}), where the process has left the trajectory:

(O_{T11}) *Irresoluteness*
(O_{T13}) *Problem Solving*

→ (O_{T12}) *Invalidity*

The highest point of its oscillation curve is reached at the location (O_{T12}), which is carrying the terminus *"Invalidity"*. Hence, the case in question concerns insufficiency, which means that *"Invalidity"* appears as a pronounced state attractor in Figure 4.

The following cyclic processing is initiated on the basis of a configuration, which is assembling the terminal states (S_{10}) and (S_{11}).

($S_{10 \leftarrow \alpha 3}$)
och det (X)
(and that (X))
($S_{11 \leftarrow \alpha 4}$)
och det (X)
(and that (X))

(O_{T1}) *Local Current*
($S_{12 \leftarrow \alpha 8}$)
varför (X)
(why (X))

(O_{T10}) *Sluggishness*
($S_{13 \leftarrow \alpha 1}$) X

(O_{T10}) *Sluggishness*

(O_{T12}) *Invalidity*
(O_{T10}) *Sluggishness*

(O_{T11}) *Irresoluteness*

The first cyclic swing in the establishment of this microstructure is extracting *"Local Current"* as the informational invariant, which is specifying the meaning of the resulting transformation. With the departure in the established state attractor and swinging towards the following terminal state extracts "Sluggishness", which is participating in the description of the kinematic trajectory of Figure 4. But the looping in the text producer's argumentation appears now in an involuted circle below sea level.

Since the highest point of oscillation is reached at the location (O_{T11}), it can be stated that the emerging microstructure is related to the encircling of the focal condition. This condition satisfies the expression of a phase-dependent remoulding. The final microstructure is initiated on the basis of the configuration that is assembling the terminal states:

($S_{14 \leftarrow \alpha 14}$)
varför (X)
(why (X))
($S_{15 \leftarrow \alpha 15}$)
det kommunen+väl jag+i(Y)
(it (the municipality+I+
a damn+at(Y)

(O_{T9}) *Sluggishness*
($S_{16 \leftarrow \alpha 16}$)
Det (kommunen+väl jag+I(Y)
(It(the municipality+I a damn+at(Y))

(O_{T8}) *Discontent*

In transiting through the terminal states of the final motif, the pendulum is first lifting up *"Sluggishness"* once more, which is established as a limit cycle attractor. In processing the last terminal state of the A-space, the reached location (O_{T8}) is binding "Discontent" to the evolving microstructure. To be complete, the pendulum now takes its departure in the established state attractor (O_{T8}) and swings back to the location (O_{T10}), which contains the terminus *"Ineffectiveness"*.

(O_{T11}) *Irresoluteness*
(O_{T8}) *Discontent* } (O_{T10}) *Ineffectiveness*

The holophor of the configuration of intention, shown in Figure 4, is characterising the formation of intention. Related to the degree of implicitness of the original Swedish text, depth refers to the conceived "Involuntary" behaviour of the citizen, which implies persistent *"Ineffectiveness"*. The capacity of capturing the depth in the meaning of this intentional specification has to be conceived of as the operational definition of obliqueness in the intentional expression of perceived environmental conditions.

When compared to the motifs of the O-space, the obliqueness of intention is producing a new configuration through the cooperation of remoulded motifs. In conclusion, when the operation of rotation-translation runs through "state-paired" textual agents, cyclic processing is extracting the informational invariants, which are specifying the profile of intention through the remoulded microstructures. The involved motifs have generated a perspective concentration on the focal condition, which appears at the highest peak as *"Fixation of Focus"*. Conceived as an informational invariant of the configuration of intention, it is directing attention on a recurrent articulation of *"Irresoluteness"* and *"Invalidity"*, which is thematically embedded in the text producer's focus of intention. The other condition offers the exceptional possibility for processing the degree of implicitness at the kinematic level. For example extracting the circularity of *"Sluggishness"*, the implicitness of *"Discontent"* gets operational meaning through the underlying direction of the identified relationship.

The English Holophors

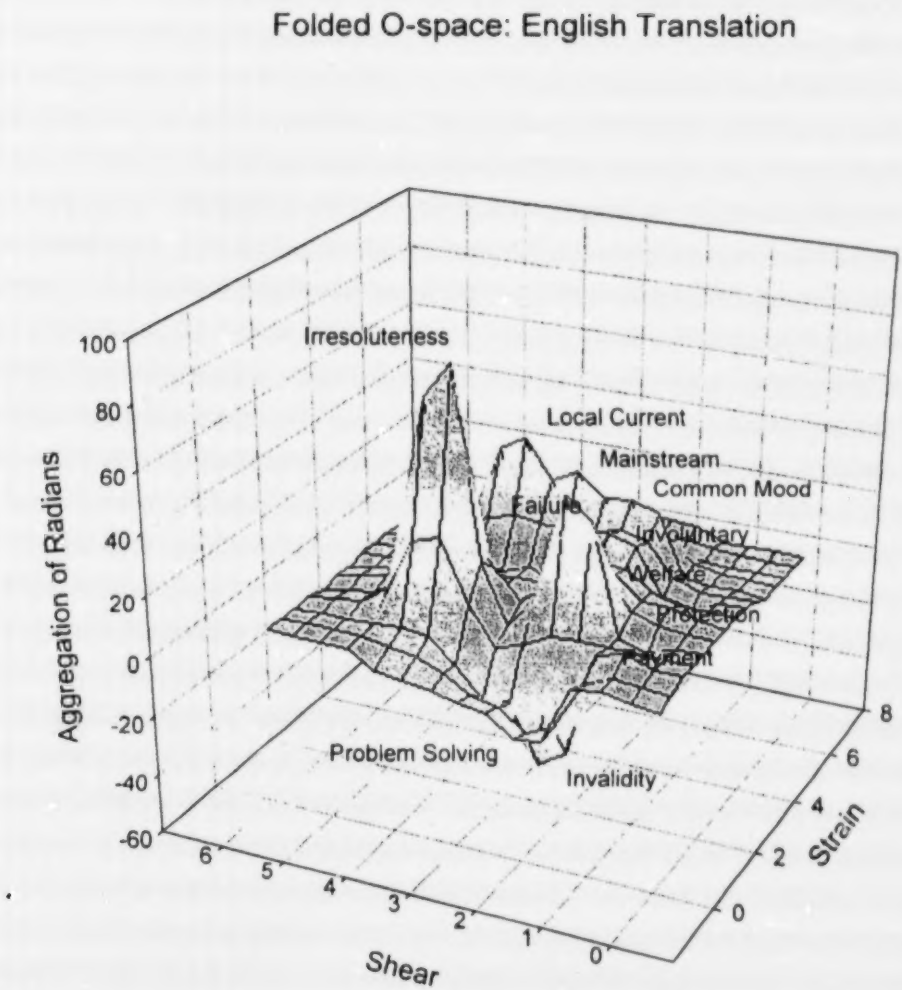
Remoulding recurrent informational invariants is a sign of strength in the structural adaptability of rotation-translation operations. As shown in Figure 5, remoulded invariants are manifesting a certain degree of structural stability in the thematic development. When spiralling around a certain kinematic trajectory, modified informational invariants give expression to variations in degree of differentiability. Together, the variations in the development of microstructures as well as the variation in an evolving macrostructure are producing the translation-rotation of a particular thematic development. The actual thematic evolution in the processing of the English translation has synthesised the following relationship as basis for the identification of the first microstructure:

($S_{1\leftarrow\beta4}$)
I
($S_{2\leftarrow\beta6}$) } (T_1) *Payment*
my salary

When compared to the Swedish articulation, the distinctness of the first path relates to the impact of the terminal state (S_2), which is embedding an understanding of a fixed compensation for services, paid to the worker on a regular basis. The essence of the terminus can be captured in the name *"Payment"*. But transiting through the next two terminal states the process is generating the informational invariant of the microstructure of a second path.

Figure 5.

The English Objective



In viewing oneself (S_4) as being sheltered and protected in the conservative way, the name of the resulting invariant suggests itself as *"Protection"*.

($S_{3\leftarrow\beta7}$) a damn ($S_{4\leftarrow\beta12}$) I } (T_2) *Protection*

When the path of this substructure is meeting the path of the first, an inverse saddle-shaped configuration comes into existence, which is producing the first thematic state attractor of the English translation:

(T_1) *Payment*
(T_2) *Protection* } (T_3) *Welfare* ($S_{5\leftarrow\beta14}$) a damn } (T_4) *Involuntary* ($S_{6\leftarrow\beta15}$) the same reasoning here } (T_5) *Common Mood* ($S_{7\leftarrow\beta1}$) of the common attitude of today }

(T_6) *Mainstream* ($S_{8\leftarrow\beta3}$) for the local government employees only } (T_7) *Local Current*

In transiting through this path, the structure becomes detailed through a pronounced and adverse judgement upon what is causing the payment. What is arching under the established shape is concentrating on a particularly low level of ambition and a contrasting high degree of self-confidence. Implied is a particular understanding of *"Welfare"*.

In criticising adversely the conditions of work this way, the failure to comply is implied in the terminus at (T_4) of the convolution, namely *"Involuntary"* behaviour. The next following transition is transforming the established thematic trajectory by passing through the terminal state (S_6). At the reached stage, the process is at the thematic level manifesting a stable societal condition, which has to be comprehended as *"Common Mood"*. The terminus implies a lack of distinction as well as a reference to what is generally known or frequently heard about everyday conditions. A further thematic transformation of this singularity comes about through the following terminal state (S_7). Transiting through this terminal state implies a circumstance-dependent articulation towards a societal current. In capturing the prevailing current, the name *"Mainstream"* is manifesting its informational significance. From a constructional point of view, this state attractor is channelling the concept of a general welfare into the information flow. A further transitional step is changing the thematic direction through the following terminal state (S_8). In passing through this terminal state, the process is resulting in an invariant, which is bending the thematic development toward prevailing local conditions. Therefore, the directional change has been manifested in the name *"Local Current"*.

The change through this transformation seems to be remarkably slight, since it is safeguarding the producer's synthesis and judgement of the effect of the concept of general welfare within a local context. To understand the processes that have produced apparent similarity in the structural relationship, it will be necessary to reflect on the evolutionary freedom in the development of a theme. Evolutionary freedom is largest when the initial condition requires the production of interacting motifs. However, as soon as this condition is satisfied, novel transformations are changing the condition and constraining the thematic development. Thus far, the English translation has offered a similitude in the discovery of how important thematic transformations may emerge and be conserved in the naming of the resulting informational invariants. Two substructures have been conserved thus far.

In contrast to the first two substructures, a third substructure is changing the direction of the thematic development radically. In making the transition from (S_9) to the terminal state (S_{10}), the characteristic of the transformational effect is preserved in the name: *"Discontent"*.

($S_{9\leftarrow\beta2}$)
not and_that X for local
government employees
only
($S_{10\leftarrow\beta13}$)
not I a damn

(T_8) *Discontent*
($S_{11\leftarrow\beta11}$)
the local authority
+money

(T_9) *Sluggishness*
($S_{12\leftarrow\beta5}$)
most people
+my salary

(T_{10}) *Ineffectiveness*

The interplay between the text segments generates an orientation towards refusal. To decline the acceptance of a work obligation involves withholding consent and implies an affront in not recognising the presence of a proposal.

When the resistive import is compared to the previously formed attractor states with the same name, it becomes obvious that the linking mechanism performs properly however only under the condition that text is treated as a highly dissipating system. In a further transitional step, through (S_{11}) the implied work-resistance is transformed and linked to a target, which is the local government. Thermodynamically the process is operating irreversibly and is thereby generating the state of *"Sluggishness"*. Moreover, the state of affairs is enhanced by the transition through a terminal state (S_{12}), which is structurally elaborating non-accessibility. With reference to the perceived pattern of people's intentional disinclination, the final step is manifesting the expression of incapacity to cope with the local assignments. In reference to the emerging line of reasoning, the last step makes evident an *"Ineffectiveness"*, which renders the demonstrated behavioural results as worthless.

Hence, the rotation of the English translation appears as an elaborated phase-dependent processing, which is converging on lacking integration, particularly in reference to a lack in balanced functioning in the actual work environment. Failing to perform in correspondence to an assignment is the emerging significance of the thematic trajectory:

(T_7) *Local Current*
(T_{10}) *Ineffectiveness*

(T_{11}) *Irresoluteness*

In taking advantage of the crossing of the path of the third substructure with the established thematic trajectory, a constricting change is effectively contributing to the deepening in the articulation, which is converging in the attractor state: *"Irresoluteness"*. The distinctness of the transformational effect of the layered segments lies in the pick up of the principle that motifs have dynamic properties. A fourth substructure is emerging and related to the following terminal state transitions:

(S_{13}←β_{10})
with ideas
(S_{14}←β_9)
up (the local authority
+money+with ideas as to)
} (T_{12}) *Problem Solving*
(S_{15}←β_8)
(most people+
up the local authority
+ money+with ideas as to)
} (T_{13}) *Invalidity*

The capacity of ideas to serve as mainsprings of action is the true potential for probing in order to provide a possible solution. At a minimum, it serves as the basis for diagnosing possible disorder. The implication captured in the name of the resulting attractor state is *"Problem Solving"*. The next following transition through a terminal state (S_{15}), which gives expression to the unwillingness of many people, is transforming the evolving path into a persistent prevention that the local "money"-problem is becoming solved. The character of unyielding repression, associated with notorious non-fulfilment has received expression in the name: *"Invalidity"*.

When the depth of invulnerability of the fourth substructure is bending the thematic development into a new direction, a radical deflation becomes observable:

(T_{11}) *Irresoluteness*
(T_{13}) *Invalidity*
} (T_{14}) *Failure*

Thematically, it means that the attractor state *"Irresoluteness"* is transformed by *"Invalidity"* into the resulting global state attractor *"Failure"*, which is settling the thematic course.

The turned phrases of the English translation have elevated to the surface of the holophor the high rank of the welfare-context, which is occupying the original Swedish text. At the foothills of the English holophor, the termini are indicating the reappearance of *"Payment"* as well the conceived *"Protection"*. The translation has also recovered *"Involuntary"* behaviour, but changed the rotational distance. Established is the systematic translation of the conceived current, implying *"Irresoluteness"* as the *"Local Current"*, which is controlling the conduct.

Thus, the conduct is addressing the larger aspect of the Swedish welfare system. But also in its more subtle aspects, such as the nature and opportunity to deceive the system has been brought to the forefront. The most striking effect points to the rotational impact on the relation between *"Discontent"*, *"Sluggishness"*, and *"Ineffectiveness"*, which are reappearing and the involved shifts have produced a new trajectory towards *"Invalidity"*.

The new thematic trajectory has made explicit in detail the indirect nature of a dishonest mode of response. Implicit and extended constraining of a constructive conduct

towards solving the tasks of work is emerging below sea level. When faced with the Swedish welfare-system, the information picked up from the context seems to imply that there is no genuine opportunity to practice direct adjustments. From this point of view, the translation has been successful in securing the behavioural weakness in *"Invalidity"*, which is addressing the characteristic lack of resolution. Furthermore, embedded in the depth of the verbalisation is a deflation of the *"Problem Solving"* task.

In comparison, the rotation of the English translation sets the level of "bad sense" near the ground, which makes obvious that the core of the translation has been returned. The returned phrases involve a re-organisation of the Swedish expression, which is associated with a translation of the informational invariants to various degrees. The manifested rotation-translation operations are primarily locally controlled asymmetries. Hence, system-specific dependencies and local growth factors are responsible for the established changes in the transformation of the motifs and their thematic integration. However, despite some functional differences in the developing structural relations between the substructures, reproduction of the original Swedish text in the form of the English translation has made it possible to recover *"Failure"* as the global state attractor.

The Holophor of the A-space

All text translations are producing unique variations in a configuration of intention, but the course of intention is not known. If experience is cued by certain events some general remarks about their observations will usually originate a verbal expression. When related text segments are incorporated into the structure of Figure 6, their closeness within a certain substructure constitutes the foundation for corresponding degrees in angular articulation. With respect to timing in the course of intention, extracting the degrees of rotation-translation through the pendular swings, the operations of the mechanism are starting with the following configuration of terminal states:

$(S_{1\leftarrow\alpha 9})$
why (X)
$(S_{2\leftarrow\alpha 10})$
why (X)
(O_{T12}) *Problem Solving*
$(S_{3\leftarrow\alpha 8})$
why (X)
(O_{T13}) *Invalidity*
$(S_{4\leftarrow\alpha 11})$
why (X)

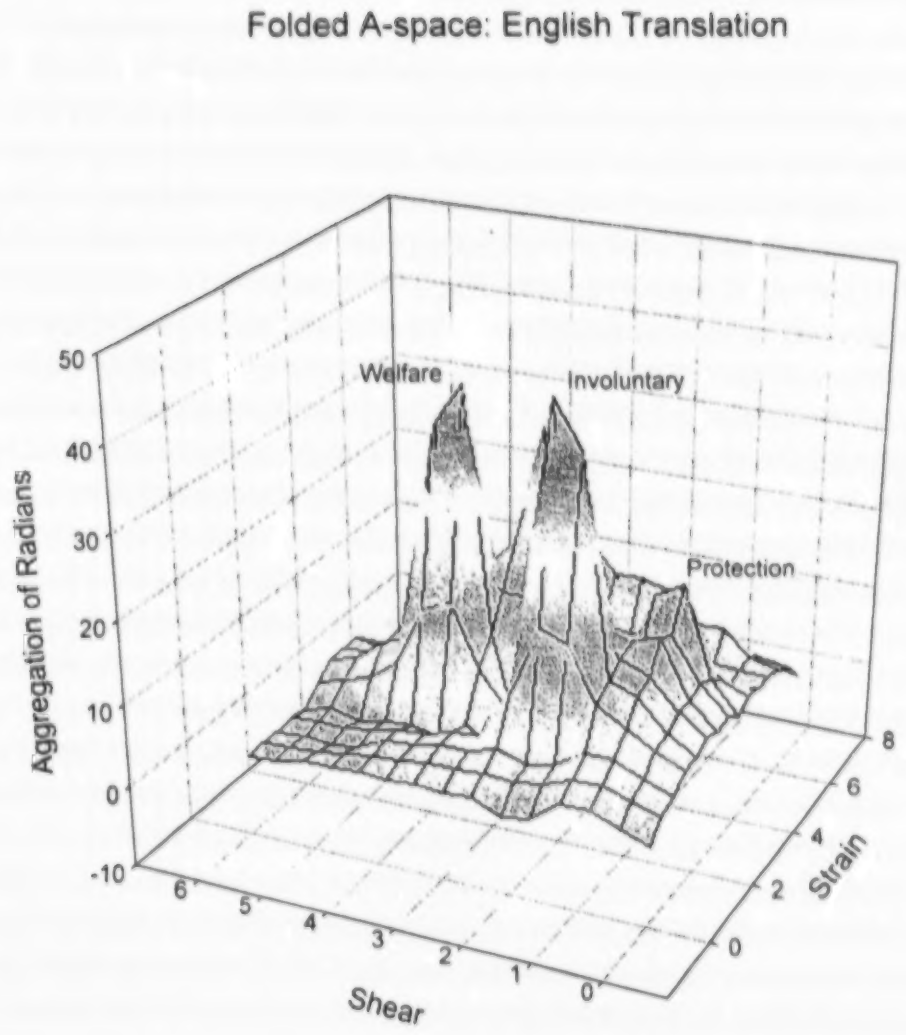
(O_{T9}) *Sluggishness*
$(S_{5\leftarrow\alpha 12})$
the local authority
O_{T2} *Protection*

Concerning the differentiability of this process, the initially extracted singularity is *"Problem Solving"*, which is specifying a condition of conduct and hence that a justified contention is in the flow of public opinion. In establishing the microstructure of the first motif, it becomes obvious that a remoulding process has operated and developed a path, which demonstrates a difference in the operational function of the terminus *"Invalidity"*.

Hence, the attractor (O_{T9}) makes explicit that a majority of people is causing what is indicative of the prevailing mood, namely *"Sluggishness"*. The next following transition step is initiating a swing, which is extracting that part of the thematic path of the O-component, which is holding the cause, namely *"Protection"*.

Figure 6.

The English Agent



When this singularity is specifying the final attractor state of the substructure in the A-component, it is constraining the significance of the flow. However, a subsequent step is directing the extraction process to another microstructure, which means that the development in the A-component is focusing attention towards a second motif. The second motif becomes established when the pendulum is swinging through the following terminal states:

$(S_{6\leftarrow\alpha4})$ most people $(S_{7\leftarrow\alpha5})$ most people } (O_{T10}) *Ineffectiveness* $(S_{8\leftarrow\alpha3})$ and that (X) } (O_{T7}) *Local Current* $(S_{9\leftarrow\alpha1})$ Just } (O_{T6}) *Mainstream*

The particularity of the attractor state of the second motif is pronounced disapproving of the local authority. Thus, the first swing is extracting the singularity *"Ineffectiveness"* as the specification of the observed motif of intention. Behaviourally, the condition inflicts a "loss" on the community. The next following pendular swing is extracting *"Local Current"* as the singularity, which is specifying the second attractor state of the emerging microstructure. One more cycle is initiated in order to extract the singularity, which completes the microstructure of the second motif. The established specification makes evident that a failure or ruination incurred by the adverse criticism is resulting in *"Mainstream"*. The meaning of the first attractor state of the kinematic trajectory is confining the origin or source of the perceived key condition to the municipality:

(O_{T2}) *Protection* (O_{T6}) *Mainstream* } (O_{T4}) *Involuntary*

When the path of the second motif meets the path of the first, the highest point of the evolving curve is located in the singularity *"Involuntary"*, which is extracted and established as the first thematic state of intention. The next following configuration of terminal states is establishing the third motif:

$(S_{10\leftarrow\alpha13})$ the local authority $(S_{11\leftarrow\alpha14})$ the local authority } (O_{T4}) *Involuntary*

Obviously, the condition that most of the people are protected by some domestic system, as implied by the local authority, is the informational outcome of the established microstructure. Swinging the pendulum from the initial to the final terminal state of the third motif is extracting *"Involuntary"* once more as specification of the underlying relationship.

When the process of extraction is advancing through the crossing of the path of this motif with the developing curvature of the thematic expression, its peak is at the singularity *"Welfare"*, which comprises the attractor state of the crossing:

(O_{T4}) *Involuntary*
(O_{T2}) *Protection* } (O_{T3}) *Welfare*

The following swings concern the establishment of a fourth motif, which is based on the terminal states:

($S_{12\leftarrow\alpha2}$)
and that (X)
($S_{13\leftarrow\alpha6}$)
most people } (O_{T1}) *Payment*
($S_{14\leftarrow\alpha7}$) why (X) } (O_{T2}) *Protection*
($S_{15\leftarrow\alpha15}$) It(I+a damn) } (O_{T5}) *Common Mood*

The kinematic path of intention is generating a pendular movement, which is producing a saddle-shaped bending of the fourth motif towards their composition into the following thematic development:

(O_{T3}) *Welfare*
(O_{T5}) *Common Mood* } (O_{T4}) Involuntary

When the path of the fourth motif meets the thematic path, the highest point is reached at the position, which is named *"Welfare"*. The establishment of the resulting specification is departing into the global state attractor. Thereby, the singularity *"Involuntary"* is extracted as the coordinating state attractor of intentional import. Based on the specification of the global state attractor, it can be stated that it is the direct expression of the vacillating behaviour and weakness in the disposition of the people for *"Problem Solving"*. Lack of strength is contributing to the convergence of the motif in people's incapability or indecisiveness.

Hence the final attractor state is expressing the solid fact that *"Involuntary"* behaviour is the general mood of expression. From the intentional point of view this means that most people simply are not liable to be called to account by the local authority. The holophor of Figure 6 is a further demonstration of significant differences in the formation of intention. The landscape of the manifested configuration is experimentally marking differences concerning the gradient of direct and indirect expressed intention. In particular, convergence at the steepest singularity gives expression to the degree to which the stated *"Involuntary"* behaviour is the result of self-indicative operations during stabilisation of an intentional potential. This potential is noticeably self-indicative.

Differently elongated fading of the textual agents is producing a convolution of the configuration, which is directing the generation of sequence-specific bindings towards the extraction of the *Welfare* attractor. The extracted *"Protection"* is thematically entailing an intentional impenetrability. The latter is revolving around non-accountability concerning the fulfilment of a work-task. But the major difference can be referred to the rockiness of the

observed flows of opinion, which are capturing the particular conduct of the people as the key property of the prevailing local current. In conclusion, the rotation-translation operations in O-domains as well as in the A-domains have produced informational coherence. It follows that the holophors allow for the rotation and incorporation of intention and orientation into a single harmonious framework.

A Summary

As a rule, it is always possible to associate a word with fused strings, but it has meaning only in the configuration context of a particular holophor. In this sense, a word communicates the state that a system has reached in the realisation of a certain action. The closeness of a particular name to some other in space and time makes the fusion possible and transforms the entrenched attractors into a unified attractor space representation. Once a new term has come into existence, its transformation through successive states in this space imposes rigour on the process of naming and generates the informational specificity of the evolving state attractors. As demonstrated in Table 3, the causal relationships between the underlying morphological configuration of a particular text and the resulting informational invariants make evident the specificity of the pathways, which are summarised in Table 3.

Table 3.

Sequential Order of Informational Invariants on the Established Pathways

Swedish O-domain	English O-domain	Swedish A-domain	English A-domain
Local Current	Payment	Payment	Problem Solving
Mainstream	Protection	Payment	Invalidity
Fixation of Focus	Welfare	Fixation of Focus	Sluggishness
Payment	Involuntary	Irresoluteness	Protection
Protection	Common Mood	Irresoluteness	Ineffectiveness
Welfare	Mainstream	Problem Solving	Local Current
Involuntary	Local Current	Invalidity	Mainstream
Discontent	Discontent	Local Current	Involuntary
Sluggishness	Sluggishness	Sluggishness	Involuntary
Ineffectiveness	Ineffectiveness	Sluggishness	Welfare
Irresoluteness	Irresoluteness	Irresoluteness	Payment
Invalidity	Problem Solving	Sluggishness	Protection
Problem Solving	Invalidity	Discontent	Common Mood
Failure	Failure	Ineffectiveness	Involuntary
Fiasco			

The termini of Table 3 concern point as well as state attractors. A termini which is reappearing at a different level and in different conceptual context, is related to a particular style of looping in the text producer's style of argumentation or writing. Thus the asymmetric relations between certain termini of Table 3 are the result of remoulding. Shared termini are emerging, but become specified through their "new "structural relations.

In returning to the differences between the distribution of the potential of the A- and O-domains, the results deviate in some important aspects. As it appears, there are several factors at work. First of all, the rotations in the O-domains seem to have been dependent a radial force that is determined by the same kind of straining. The other force seems to have determined similar shear effects. Since both forces have produced singularities, which at the

end of the respective path have been named alike, it can be concluded that the commonalty of the emerging "category-systems" seems to relate lawfully to the interviewee's verbal "layout". The produced text and its reworking through translation into English has generated singularities of considerable depth and commonalty.

Discussion

The study of natural language expressions by the disciplines in the Social Sciences and Humanities presupposes that text can be cut into bits and thus broken into pieces. This kind of fragmentation is assumed to guarantee the generation of primitives, which are carrying commonly valid textual properties. Since it is assumed that primitives can be framed deductively into logically sound propositions, it is likewise assumed that rules can be set up for their "logically sound" interconnections. Operations of modern symbolic logic are thereby used with the purpose to construct "strings of symbols", called "formulas" on which "proofs" can be built and used as framework for empirical testing. What sets the present approach apart from working with artificially constructed classes and their arrangement into classification systems is its concentration on rotational dynamics and on the geometric description of the results of textual movements.

In conclusion, the present article has demonstrated that the shortcomings and difficulties, associated with the application of traditional models to the intuitions and projections of a text producer can be circumvented, provided the "analytical proposition" as foundation of analysis is replaced with the "synthetic proposition". Characteristic of the latter is its concentration on (1) the interplay between intentionality and orientation on one hand, and (2) coordinative dependency on the other. In manifesting the effect of coordinative dependencies in the form of holophors, it has been possible to demonstrate "symmetry" as a consequence of textual patterning and timing.

In order to give reality to the hypothesis that rotational dynamics is basic to the effects of selective textual movements, two text samples have been studied. The experimental procedure has been focused on a manipulation of "asymmetry" and consequently "phase transitions" in the development of a thermodynamic trajectory. Asymmetry has been tied to the translation of an original Swedish sample text into English. Compared to the producer of the original, it has been possible to show that the translator meets the same functional requirements but in a different way. Nevertheless, the translator has been able to produce trajectories of similar kind. Finally the structurally significant aspects of the trajectories have been captured conceptually in the naming of the kinematic states of the evolving systems. When invariant conceptual structures are present, they are pointing toward the presence of a biologically determined interplay between intentionality and orientation. Despite thermodynamic trajectories that differ somewhat in direction and orientation, the biological roots of the AaO-mechanism account for the established conceptual commonalty.

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Author's Note

As acknowledged in Bierschenk & Bierschenk (1986b), two doctoral students made the interview-text available in 1985. The English translation has been carried out in 1997 by Dagny Persson, authorised EU-translator and Subject Teacher at a Gymnasium in Lund, Sweden.

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